



Course syllabus

Logistik och verksamhetsstyrning Fundamentals of Logistics and Operations Management

MTTF25, 7,5 credits, G2 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED I

Date of Decision: 2023-04-14

General Information

Main field: Logistics and Supply Chain Management .

Compulsory for: MLOG1

Elective for: MKAT2

Language of instruction: The course will be given in English

Aim

The course provides the fundamental knowledge about logistics and operations management, i.e. designing, planning, controlling and improving industrial operations. The course focuses on the company and its supply chain: from suppliers, through the company, and to the customers. The course also provides understanding of the associated information flow, and how logistics and operations management contributes to the profitability of the company.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- have acquired a comprehensive view of logistics and operations management
- have an understanding of the relationships among profitability, customer service, costs, and tied-up capital.

- have acquired knowledge on the role of logistics and operations management in the company, with a focus on structural as well as operational issues

Competences and skills

For a passing grade the student must

- be able to provide details about logistics and operations management concepts
- have the ability to identify and describe material and information flows in the company and the links to suppliers and customers
- have the ability to use the most common methods and models for designing, planning, controlling, and improving industrial operations

Judgement and approach

For a passing grade the student must

- be able to apply critical and creative thinking to logistics and operations management problems
- shall have obtained an engineering approach to logistics and operations management issues and challenges

Contents

The course contains four parts:

- Managing logistics and operations system: Value creation and strategic perspectives.
- Designing industrial operations: Products, processes, quality, and capacity.
- Linkages to suppliers and customers: Sourcing, purchasing, transportation, materials handling, and inventories.
- Planning and controlling inventory and production in the supply chain: Forecasting, long-term and short-term planning and control, and lean-based operations development.
- The course is organized with lectures, exercises, laboratory assignments and case assignments.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: Written examination and approved assignments. Compulsory attendance may occur in certain parts.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Parts

Code: 0115. **Name:** Written Examination.

Credits: 6. **Grading scale:** TH. **Assessment:** Satisfactory exam.

Code: 0215. **Name:** Assignments.

Credits: 1,5. **Grading scale:** UG. **Assessment:** Satisfactory assignments.

Admission

Admission requirements:

- Basic knowledge in mathematical statistics and operations research

The number of participants is limited to: No

The course overlaps following course/s: MTTF01

Reading list

- Bozarth, Cecil C. and Handfield, Robert B.: Introduction to Operations and Supply Chain Management. Pearson, 2019, ISBN: 0-273-77008-X. 5th edition (2019) or 4th edition (2016).

Contact and other information

Course coordinator: Louise Bildsten, louise.bildsten@tlog.lth.se

Course homepage: <https://canvas.education.lu.se>

Further information: Participation is mandatory for the first session. Absence from the first class session may result in an automatic drop from the course.